Yulin Wang

Ph.D. Student, Tsinghua University

Research Interests: Efficient Deep Learning, Dynamic Deep Network, Computer Vision.

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Education

Ph.D. Student in Pattern Recognition and Machine Learning, Tsinghua University, China.   09/2019 –   Now

> ➢ *Advisor: Prof. Cheng Wu and Prof. Gao Huang.*

B.Eng. in Automation, Beihang University, China.   09/2015 – 06/2019

> ➢ *GPA **Top 1/231** in the school of automation science and electrical engineering (SASEE).*

> ➢ *Awarded **"Shen Yuan" Medal** by Beihang University (**Top 10** in 18,000+ undergraduate students every year).*

Research Experience

Intern, Berkeley Deep Drive, University of California Berkeley, USA.   07/2018 – 08/2018

> ➢ *Advisor: Dr. Ching-Yao Chan.*

Intern, Lab of Intelligent Manufacturing, Beihang University, China.   06/2017 – 06/2018

> ➢ *Advisor: Prof. Fei Tao.*

Publications

[1] **Yulin Wang**, Rui Huang, Shiji Song, Zeyi Huang, Gao Huang.
Not All Images are Worth 16x16 Words: Dynamic Transformers for Efficient Image Recognition
Advances in Neural Information Processing Systems (**NeurIPS**), 2021

[2] Yizeng Han, Gao Huang, Shiji Song, Le Yang, Honghui Wang, **Yulin Wang**.
Dynamic Neural Networks: A Survey
IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI, Q1, IF=16.39**), 2021

[3] **Yulin Wang**, Zhaoxi Chen, Haojun Jiang, Shiji Song, Yizeng Han, Gao Huang.
Adaptive Focus for Efficient Video Recognition
IEEE/CVF International Conference on Computer Vision (**ICCV Oral**), 2021

[4] **Yulin Wang**, Gao Huang, Shiji Song, Xuran Pan, Yitong Xia, Cheng Wu.
Regularizing Deep Networks with Semantic Data Augmentation
IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI, Q1, IF=16.39**), 2021

[5] **Yulin Wang**, Zanlin Ni, Shiji Song, Le Yang, Gao Huang.
Revisiting Locally Supervised Learning: an Alternative to End-to-end Training
International Conference on Learning Representations (**ICLR**), 2021

[6] Shuang Li, Mixue Xie, Kaixiong Gong, Chi Harold Liu, **Yulin Wang**, Wei Li.
Transferable Semantic Augmentation for Domain Adaptation
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR Oral**), 2021

[7] Shuang Li, Kaixiong Gong, Chi Harold Liu, **Yulin Wang**, Feng Qiao, Xinjing Cheng.
MetaSAug: Meta Semantic Augmentation for Long-Tailed Visual Recognition
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021

[8] Le Yang, Haojun Jiang, Ruojin Cai, **Yulin Wang**, Shiji Song, Gao Huang, Qi Tian.
CondenseNet V2: Sparse Feature Reactivation for Deep Networks
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021

[9] **Yulin Wang**, Kangchen Lv, Rui Huang, Shiji Song, Le Yang, Gao Huang.
Glance and Focus: a Dynamic Approach to Reducing Spatial Redundancy in Image Classification
Advances in Neural Information Processing Systems (**NeurIPS**), 2020

[10] **Yulin Wang,** Rui Huang, Gao Huang, Shiji Song, Cheng Wu.
Collaborative Learning with Corrupted Labels
Neural Networks (**NN, Q1, IF=8.05**), 2020

[11] **Yulin Wang**, Xuran Pan, Shiji Song, Hong Zhang, Cheng Wu, Gao Huang.
Implicit Semantic Data Augmentation for Deep Networks
Advances in Neural Information Processing Systems (**NeurIPS**), 2019

[12] **Yulin Wang**, Yongping Zhang, Fei Tao, Tingyu Chen, Ying Cheng, Shunkun Yang.
Logistics-aware Manufacturing Service Collaboration Optimization towards Industrial Internet Platforms
International Journal of Production Research (**IJPR, Q1, IF=8.57**), 2019

Academic Service

- Reviewer for TPAMI, IJCV, T-Cybernetics, CVPR, ICCV, NeurIPS, ICLR, ...

Selected Honors

- Baidu Fellowship, Baidu Inc., 2021 (**10 PhD candidates worldwide**)
- National Scholarship, Ministry of Education of China, 2021 (**Top 2%**)
- CCF-CV Outstanding Young Researcher Award, China Computer Federation (CCF), 2021 (**3 in China every year**)
- Outstanding Reviewer, CVPR, 2021
- Outstanding Oral Presentation, Doctoral Students Forum, Tsinghua University, 2021
- Travel Award, NeurIPS, 2019
- "Shen Yuan" Medal, Beihang University, 2018 (**Top 10 in 18,000+ undergraduate students every year**)
- National Scholarship, Ministry of Education of China, 2018 (**Top 2%**)
- National Scholarship, Ministry of Education of China, 2017 (**Top 2%**)
- Innovation Scholarship, Ministry of Industry and Information Technology of China, 2017 (**Top 1/231**)
- First Prize in the "Zhou Peiyuan" Mechanics Competition for Undergraduate Students, 2017 (**Top 0.3%**)
- First Prize in National Undergraduate Mathematical Contest in Modeling, 2017 (**Top 0.2%**)
- Scholarship for Outstanding Academic Performance, Beihang University, 2016-2019 (**Top 5%**)

Invited Talks

- 2019.10, SCSE, Beihang University, Semantic Data Augmentation
- 2019.12, School of Computer Sci. and Tech., Beijing Institute of Technology, Semantic Data Augmentation
- 2020.06, Huawei Technologies Ltd., Glance and Focus Networks
- 2020.11, Qingyuan Seminar, Glance and Focus Networks
- 2021.03, ByteDance Ltd., Semantic Data Augmentation
- 2021.04, Doctoral Students Forum, Tsinghua University, Locally Supervised Deep Learning
- 2021.04, Beijing Academy of Artificial Intelligence, Dynamic Image/Video Recognition
- 2021.06, AI Time, Locally Supervised Deep Learning
- 2021.07, SIA, Chinese Academy of Science, Efficient Deep Learning
- 2021.09, Aibee (invited by Yuanqing Lin), Semantic Data Augmentation
- 2021.10, School of Computer Science, Fudan University, Dynamic Deep Networks for Reducing Spatial Redundancy